

In The Claims:

This list of claims will replace all prior versions and listings of claims in the application. Please amend the claims as set forth below.

1. (Currently amended) An ultrapure water production plant producing ultrapure water by introducing primary pure water as liquid to be processed, comprising:

an ultraviolet oxidation equipment decomposing an organic compound contained in the primary pure water, and generating a decomposition product of the organic compound; and

a catalyst mixed tower located in the downstream of the ultraviolet oxidation equipment and having catalyst supports each of which has a catalyst carried on a support, the catalyst mixed tower also having anion exchange resins for ion exchange which absorb and remove the decomposition product of the organic compound.

2. (Original)The ultrapure water production plant according to Claim 1, wherein a membrane degasser and a demineralization equipment are located in the downstream of the catalyst mixed tower.

3. (Previously presented) The ultrapure water production plant according to Claim 2, wherein the demineralization equipment is an ion exchange resin tower comprising a mixed bed in which the anion exchange resins and cation exchange resins are mixed.

4. (Previously presented) The ultrapure water production plant according to Claim 3, wherein a ratio of the catalyst supports to the anion exchange resins is between 3% and 20% by weight.

5. (Previously presented) The ultrapure water production plant according to Claim 3, wherein a ratio of the catalyst supports to the anion exchange resins is between 8% and 13% by weight.

6. (Previously presented) The ultrapure water production plant according to Claim 3, wherein the catalyst decomposes hydrogen peroxide.

7. (Currently amended) The ultrapure water production plant according to Claim 6, wherein the catalyst is selected from palladium, manganese dioxide, ferric chloride or [[an]] a palladium alloy thereof.

8. (Previously presented) The ultrapure water production plant according to Claim 3, wherein the support is selected from ion exchange resin, active carbon, alumina or zeolite.

9. (Previously presented) The ultrapure water production plant according to Claim 8, wherein the ion exchange resin is an anion exchange resin.

10. (Currently amended) The ultrapure water production plant according to Claim 9, wherein the catalyst supports are spherical catalyst supports which are carried with the anion exchange resins [[resin]].

11. (Previously presented) The ultrapure water production plant according to Claim 3, wherein the anion exchange resins are strong base anion exchange resins.

12. (Previously presented) The ultrapure water production plant according to Claim 11, wherein a substrate of the anion exchange resins is selected from styrene origins, acrylic origins, meta-acrylic origins, or phenol origins.

13. (Previously presented) The ultrapure water production plant according to Claim 12, wherein the substrate of the anion exchange resins have a structure which is selected from a gel type, a porous type, or a high porous type.
14. (Previously presented) The ultrapure water production plant according to Claim 3, wherein the catalyst mixed tower holds the anion exchange resins and the catalyst supports in a mixed state.
15. (Previously presented) The ultrapure water production plant according to Claim 3, wherein the catalyst mixed tower holds the anion exchange resins and the catalyst supports separately.
16. (Previously presented) The ultrapure water production plant according to Claim 15, wherein the catalyst mixed tower is a layered bed type holding a catalyst support layer located on an inflow side of the liquid to be processed and an anion exchange resin layer located on an outflow side of the liquid.
17. (Previously presented) The ultrapure water production plant according to Claim 3, wherein the catalyst mixed tower further includes cation exchange resins.
18. (Previously presented) The ultrapure water production plant according to Claim 3, wherein a velocity of the liquid to be processed toward the catalyst mixed tower is set at approximately $SV = 10$ to 200 hr^{-1} .
19. (Previously presented) The ultrapure water production plant according to Claim 18, wherein a direction of the liquid to be processed is set to downflow.
20. (Previously presented) The ultrapure water production plant according to Claim 3, wherein the primary pure water has a resistivity equal to or greater than

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VIA EFS

10 MΩ•cm, a dissolved oxygen concentration of 0 to 1000 µg / L, an organic compounds concentration of 0 to 20 µg/ L, and a metal concentration of 0 to 1 µg/ L.